

December 06, 2017



U.S. Department
of Transportation

East Building, PHH-30
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP20504

EXPIRATION DATE: 2019-11-30

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: A123 Systems LLC
Livonia, MI
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of lithium ion batteries in excess of 35 kg net weight by cargo-only aircraft. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
 - b. The safety analyses performed in the development of this special permit only considered the hazards and risks associated with the transportation in commerce.
 - c. This special permit serves as an approval under Special Provision A99 of the International Civil Aviation Organization Technical Instructions (ICAO TI) and as a "Competent Authority Approval" as defined under 49 CFR 107.1.
 - d. No party status will be granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 172.101(j), 173.185(b).

Tracking Number: 2017078063

December 06, 2017

5. BASIS: This special permit is based on the application of A123 Systems LLC dated July 18, 2017 submitted in accordance with § 107.105 and the public proceeding thereon.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Lithium ion batteries <i>including lithium ion polymer batteries*</i>	9	UN3480	N/A

*Only lithium ion batteries identified as Tata Bus Battery Packs (Part No. 530730-251) each meeting the requirements in this Special Permit and containing lithium ion cells and modules of tested type designated as 14 Ah Prismatic Cells and Modules for PVP000114, respectively.

7. SAFETY CONTROL MEASURES:

a. Safety Controls:

(1) All battery modules are made of 45.54 Wh prismatic cells in electrical configurations as specified in the July 18, 2017 A123 Systems, LLC application on file with the Office of Hazardous Materials Safety Approvals and Permits Division (OHMSAPD).

(2) The Tata Bus Battery Pack is constructed from the battery modules in which four (4) modules are electrically connected into a Battery Pack of a nominal Wh rating of 4.48 kWh in configurations as specified in the application on file with the OHMSAPD.

(3) Cells, battery modules and battery packs must be protected against short-circuiting.

(4) All of the battery packs must be offered for transportation at a state of charge no greater than 30%.

(5) Only production lithium ion battery packs may be offered for transportation under the terms of this Special Permit.

b. Testing:

(1) Each cell type within each battery pack must have passed the required tests in accordance with the UN Manual of Tests and Criteria, 6th Revised Edition.

(2) Each type of the battery module within each battery pack must have passed the required tests in accordance with the UN Manual of Tests and Criteria, 6th Revised Edition.

(3) Each type of the battery pack must have passed the required tests in accordance with the UN Manual of Tests and Criteria, 6th Revised Edition. The required tests are T.3 (vibration), T.4(shock), T.5 (external short-circuit), and T.7 (overcharge) using one battery pack in a fully charged state.

(4) Battery packs (each of which has a Wh rating not more than 6,200 Wh) may be equipped with a battery management system capable of preventing overcharge, short circuits and over-discharge between the battery modules.

c. Packaging Requirements:

(1) Each battery pack having a mass of 12 kg or greater must have a strong, impact-resistant outer casing;

(2) The battery pack must be packed in strong outer packagings (custom designed fully enclosed plywood crate) and seated on a wooden pallet;

(3) A package may contain up to two battery packs;

(4) The net weight of a package may not exceed 127 kg (the gross weight of the battery pack in a packaging may not exceed 254 kg) when a package contains one (1) battery pack; and

(5) The net weight of a package may not exceed 254 kg (the gross weight of the battery pack in a packaging may not exceed 335 kg) when a package contains two (2) battery packs.

December 06, 2017

d. Marking Requirements: Each package, and overpack if used, prepared under the provisions of this Special Permit must be plainly marked with the approval number DOT-SP 20504.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package or its contents and it is reoffered for transportation in conformance with this special permit and the HMR.

b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

9. MODES OF TRANSPORTATION AUTHORIZED: Cargo-only aircraft.

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each aircraft used to transport packages covered by this special permit. The shipper must furnish a copy of this special permit to the air carrier before or at the time the shipment is tendered.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—“The Hazardous Materials Safety and Security Reauthorization Act of 2005” (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term “exemption” to “special permit” and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for William Schoonover
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

December 06, 2017

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: SH/TG